

In The Claims:

1. (Currently Amended) A pressure monitoring system for a tire of an automotive vehicle having a wheel comprising:

a first pressure sensor coupled to said wheel;

a pressure transmitter coupled to said pressure sensor, said transmitter generating a pressure signal;

a controller coupled to said pressure transmitter, said controller receiving said pressure signal and in a first stage, comparing the pressure signal to a pressure threshold to obtain a sensor status and in a second stage, qualifying the sensor status signal by generating a composite warning status in response to said sensor status, wherein the composite warning status provides an in-range signal when the pressure statuses have not exceeded the pressure threshold and the pressure transmitters are not in a fault condition.

2. (Original) A system as recited in claim 1 wherein the sensor status signal is an initial pressure signal and wherein said controller qualifies the initial sensor status signal by generating a low or flat warning status signal in response to said initial sensor status signal indicating a respective low or flat tire pressure.

3. (Original) A system as recited in claim 2 wherein when the status signal is not an initial status signal, qualifying the sensor status signal by receiving a plurality of equal sensor status signals.

4. (Currently Amended) A method of operating a pressure monitoring system comprising:

transmitting a pressure signal from a tire pressure sensor; and

receiving said pressure signal in a controller;

in a first stage, comparing the pressure signal to a pressure threshold to obtain a sensor status signal;

in a second stage, qualifying the sensor status signal by generating a composite warning status in response to said sensor status, wherein the composite warning status provides an in-range signal when the pressure statuses have not exceeded the pressure threshold and the pressure sensors are not in a fault condition.

5. (Original) A method as recited in claim 4 wherein the sensor status signal is an initial sensor status signal and wherein qualifying the sensor status signal comprises generating a low warning status signal or flat warning status signal in response to said initial sensor status signal indicating a respective low tire pressure or flat tire pressure.

6. (Previously Presented) A method as recited in claim 5 wherein when the status signal is not an initial signal, qualifying the sensor status signal by receiving a plurality of equal sensor status signals.

7. (Original) A method as recited in claim 4 wherein the pressure threshold comprises a low pressure threshold, a high pressure threshold or a flat tire pressure threshold.

8. (Currently Amended) A method of operating a pressure monitoring system comprising:

transmitting a plurality of pressure signals from a tire pressure sensor; and
receiving said plurality of pressure signals in a controller;

in a first stage, comparing the plurality of pressure signals to a pressure threshold to obtain a plurality of pressure status signals;

in a second stage, determining a composite warning status signal in response to said plurality of pressure status signals, wherein the composite warning status combines a low pressure warning status, a flat pressure warning status, a high pressure warning status, and a sensor status for each of the received pressure signals.

9. (Previously Presented) A method as recited in claim 8 wherein determining a warning status signal comprises qualifying the plurality of pressure status signals by generating the warning status signal in response to a predetermined number of said plurality of pressure status signal being equal.

10. (Original) A method as recited in claim 9 wherein said predetermined number is about 5.

11. (Original) A method as recited in claim 8 wherein said warning status comprises a high status or a not high status, a low status or a not low status, or a flat status or a not flat status.

12. (Previously Presented) A method as recited in claim 8 wherein determining a warning status signal comprises generating a first warning status signal in response to a predetermined number of said pressure status signals being equal within a predetermined time.

13. (Original) A method as recited in claim 8 further comprising generating an indication in response to said warning status signal.

14. (Original) A method as recited in claim 13 further wherein generating an indication comprises generating an audible signal or a visual signal.

15. (Currently Amended) A method of operating a pressure monitoring system comprising:

transmitting a plurality of pressure signals from a tire pressure sensor;

receiving said plurality of pressure signals in a controller;

comparing the plurality of pressure signals to a plurality of pressure thresholds to obtain a pressure status signal;

when the pressure status signal is above a high pressure threshold, generating a first high pressure warning status signal in response to said pressure status signal;

when the pressure status signal is below a low pressure threshold, generating a first low pressure warning status signal in response to said pressure status signal;

when the pressure status signal is below a flat pressure threshold, generating a first flat pressure warning status signal in response to said pressure status signal;

determining a composite warning signal in response to said high pressure warning status signal, said low pressure warning status signal, and said flat pressure status signal, wherein the composite warning status combines the low pressure warning status, the flat pressure warning status, the high pressure warning status, and a sensor status for each of the received pressure signals.

16. (Previously Presented) A method as recited in claim 15 further comprising when the pressure status signal is below a low pressure threshold, generating a second low pressure warning status signal.

17. (Previously Presented) A method as recited in claim 16 further comprising when the pressure status signal is below a flat pressure threshold, generating a second flat pressure warning status signal.

18. (Previously Presented) A method as recited in claim 17 further comprising when the pressure status signal is above a high pressure threshold, generating a second high pressure warning status signal.

19. (Previously Presented) A method as recited in claim 18 wherein determining a composite warning signal comprises determining a composite warning signal in response to said first high pressure warning status signal, said second high pressure warning status signal, said first low pressure warning status signal, said

21
second low pressure warning status signal, said first flat pressure status signal, and said second flat pressure status signal.

20. (Original) A method as recited in claim 19 wherein said composite signal comprises a sensor status signal.
